AMBIENT CONTROL SYSTEMS

Community Notification

Community Notification

The existing FM broadcast infrastructure providing the community with continuous music and news is the established backbone being utilized by Alert FM to provide a rapid community alerting and notification solution to small targeted groups of residents, to a city, or to an entire county. The notification is composed of an audible alert combined with a scrolling message that provides instructions on necessary actions to be taken. In most cases, this notification is delivered to the recipient within one minute. By design, most FM stations share one core attribute, their inherently disaster tolerance against catastrophic events. Even if one FM station temporarily stopped broadcasting, most urban areas are covered by several FM stations thereby providing a high degree of overlapping coverage. It is within this comprehensive infrastructure that Alert FM's GSSNet operates to deliver, through the data subcarrier of the FM signal, highly reliable Radio Data Service (RDS) messaging to the HomeALERT series of RDS receivers.

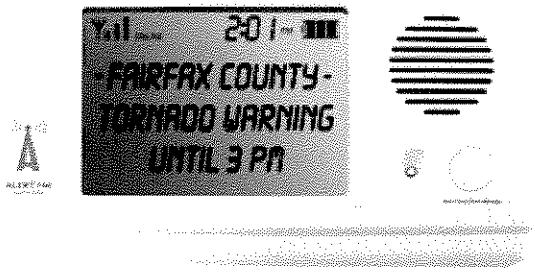
To connect an existing FM station into this notification network, it is fitted with a GSSNet encoder. Once connected, all emergency manager originated messaging is handled through EMMP's Commander*ALERT* interface. Utilizing a redundant approach, the generated message is delivered through a satellite/internet combination to the GSSNet encoder for broadcast to the selected recipients with a Home*ALERT* receiver.

Home*ALERT* – a series of self contained, event notification, FM RDS receivers providing the owner with local National Oceanic and Atmospheric Administration (NOAA) weather alerts, Homeland Security notices, Amber Alerts, in addition to all other State and local critical alerts and messaging notifications generated by police, fire, emergency management, and government official departments. With an audible alarm as loud as 90dB and messaging strings as long as 240 characters, the resident is warned of a developing event, such as an approaching wildfire. Then, by way of the unit's large LCD screen, instructions are issued directly to the resident to provide instructions on safe evacuation routes and subsequent planned staging areas.

Through an Americans with Disabilities Act (ADA) implementation, alarms and notification can also be delivered, by most of the Home*ALERT* receivers, utilizing an integrated strobe light and bed shaker relay combination, for the hard of hearing, and a text-to-speech option, for the hard of seeing.

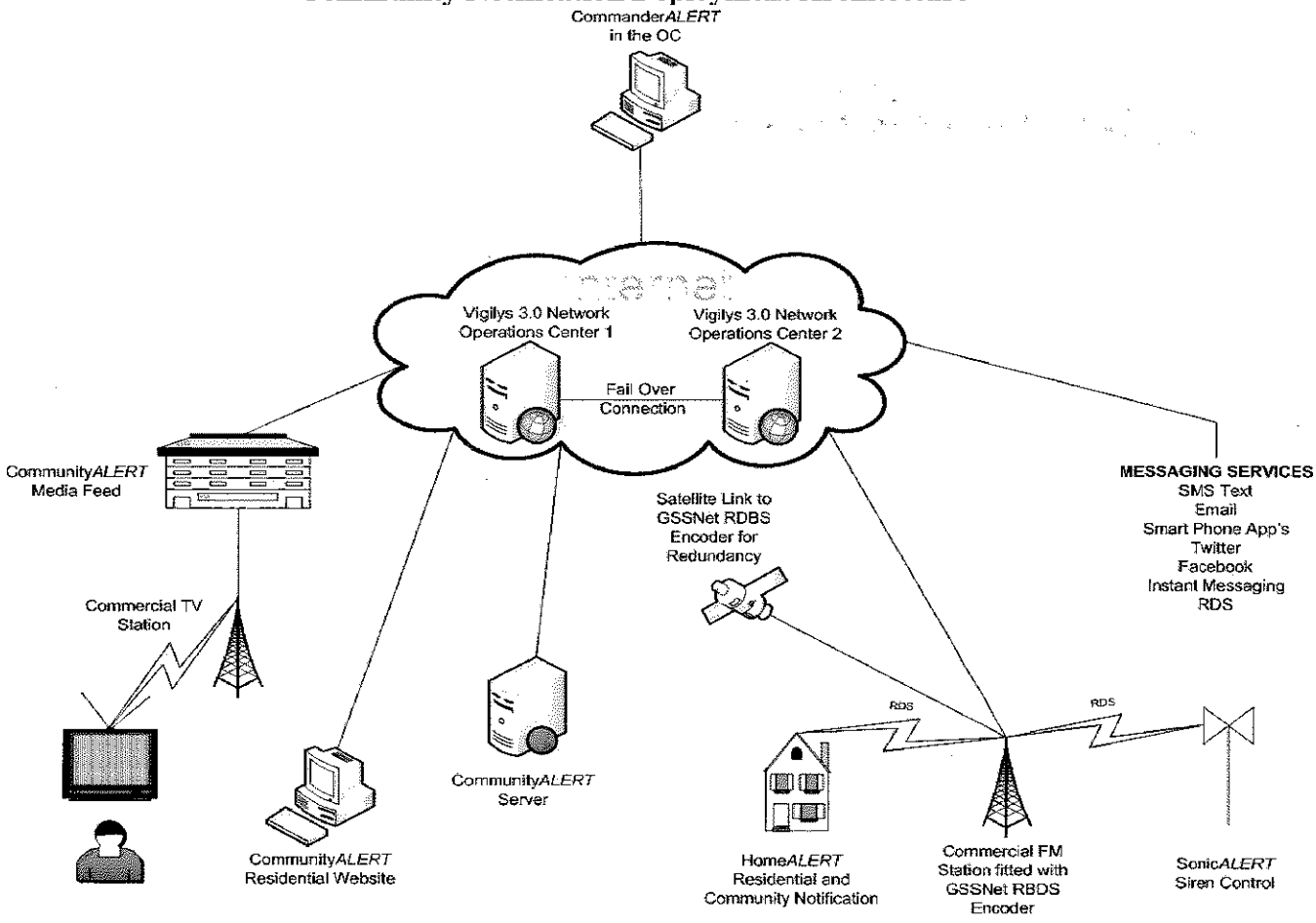
Home*ALERT* Receiver

Home*ALERT* Wall Receiver



Home*ALERT* notification for the Community provides:
Event Notification aligned with the unfolding event
Notification issued directly from the Operations Center by qualified EM's
Notification broadcast over highly reliable FM infrastructure via GSSNet's Emergency Warning System
90dB alarm will draw attention to receipt of a new notification alert
Extensive battery backup allows the Home*ALERT* series of receivers to pickup alerts and messages anywhere within the covered area, especially when recipient has been evacuated from residence
Up to 2 months of battery backup for the Home*ALERT* Receiver and 5 years for the Home*ALERT* Wall Receiver
Tied into the NOAA weather network – will receive NOAA issued weather alerts
ADA capable – will support the hard of hearing / hard of seeing community
Community*ALERT* – a web portal, designed for providing residents with current real time information on the fires location. The information will be a department "sanitized" version of the fire location data displayed within EMMP that is being utilized by the fire departments. Additional information will show evacuation routes, staging areas, in fact any and all specific information necessary to aid the residents into making informed decisions during the fire event to promote personal safety.
Sonic*ALERT* – is a control system for controlling the actuation of audible warning, omni-directional electronic sirens. It is comprised of a Radio Data Service (RDS) receiver that is synchronized with a community's commercial FM radio station once it has been retrofitted with the GSSNet RDS Emergency Warning Network. The Sonic*ALERT* will provide siren activation/deactivation and support electronic audio messaging on compatible electronic sirens. Through a network of Sonic*ALERT* control systems, multiple warning sirens can now be individually or collectively controlled throughout the community using Commander*ALERT* in the OC. This will provide a protected community with an advanced, early warning of an approaching or developing wildfire event.

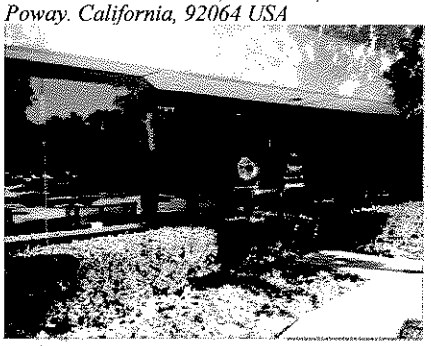
Community Notification Deployment Architecture



AMBIENT CONTROL SYSTEMS

Welcome to Ambient Control Systems!
Ambient, founded in 1999, is currently focused in two technology sectors. The first sector revolves around developing a suite of hardware and software products that are focused on providing catastrophic event management and mitigation capabilities to our Police, Fire and Emergency Services Departments, their emergency managers and field responders. By offering such products to significantly improve real time situational awareness, we are committed to providing the means to enhance the event response capability. This will coincidentally lead to a reduction in mitigation response times, and result in improvements in responder safety. Through our suite of community notification products, the dissemination of accurate and timely information during these critical events supports improved decision making for residents, thereby promoting personal safety.
The second sector is focused on supporting our military. Through a series of government funded contracts, Ambient evolved the state of the art in ruggedized, covert, small footprint, long lived, energy harvesting platforms that support the deployment of unattended ground sensors used to protect our troops in the battle space. These platforms have been designed to operate in excess of twenty years, even when subjected to environmental extremes.
No other company can claim to offer an integrated solution consisting of products, suite of products, services or suite of services that can compare with our comprehensive offering. We combine seemingly disparate hardware, software and information systems into a unified platform that seamlessly operates as one system enabling emergency responders to manage and mitigate events whilst keeping the community informed with up to the minute notifications.

Welcome to Ambient's Offices.
We are located at:
12625 Danielson Court, Suite 109,
Poway. California, 92064 USA



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Ambient Control Systems Inc. has a successful track record of developing battery-free energy collection, storage and management systems for use in remote, outdoor environments. Ambient's patented photovoltaic technology converts light to energy over a wide range of light conditions and stores the energy in a non-battery based medium, such as ultra capacitors or super capacitors. This experience has given Ambient the expertise to harvest and store the maximum available energy to power remote operations for periods exceeding 20 years under severe environmental conditions of temperature, pressure and shock.

Ambient has incorporated this technology into a number of successful commercial products for applications in irrigation control. Ambient's LEIT range of battery-free irrigation controllers activate and deactivate irrigation valves using soil moisture sensors. They have been successfully deployed internationally for over 16 years. Under an exclusive license agreement with the DIG Corporation, Ambient sold this product arm in 2001.

Military Power Systems – As a research and development company, focused on developing long-term, efficient energy harvesting and storage technologies, Ambient continues to explore opportunities to develop new applications for its energy management technology.

More so today than ever before, there is an increased emphasis on the deployment of remote sensing systems in commercial and military applications, particularly for persistent surveillance.

In military applications, considerable advances in sensor technology have accompanied this trend. However, military missions dependent upon remote sensing systems have often been compromised or limited in duration due to their reliance on batteries, which are short-lived and unreliable, particularly under the extreme environmental conditions which characterize numerous theatres of operation.

Through a number of government contract awards, Ambient's engineering team have been able to develop a series of energy harvesting products to replace conventional battery systems:

ALPC – a ruggedized, covert, 20 year lived, ultra-capacitor based power system for Special Operational Forces

NEPAL – a similar generation of systems designed specifically for the US Army

IPAL – a commercialized variant of these same products for border sensor applications with homeland security opportunities

Event Management and Mitigation – Commercial applications for remote sensing have been slower to develop. However, there is now a growing concern surrounding the increasing frequency and severity of catastrophic environmental events. With the apparent rise in wildfires, floods, seismic and tsunami events and with rapidly escalating event mitigation costs that are straining available budgets, agencies and municipalities are seeking ways in which to effectively combat these growing threats.

It all begins with Ambient's next generation Fire*ALERT* , the Fire*ALERT* MK II product line. This product is poised to introduce persistent surveillance into the commercial arena by providing a real time wildfire detection and mitigation capability. The approach taken by Ambient will provide a system of systems approach that will detect the outbreak or approach of a wildfire into a monitored area, then map and track the wildfire event in real time while making this information available through our new Event Management and Mitigation Platform (EMMP) to emergency managers, whether located in an operations center or in the field.

In this rapidly developing field, Ambient's new EMMP software product offering is designed to provide the emergency manager with real time situational awareness of an event from its inception, through its evolution to its resolution. Through its command and control heritage, born out of DoD funding for Force Protection Command and Control, EMMP also drives the mitigation activity for event resolution, placing and tracking response assets throughout the event cycle, supporting suppression activation and initiating emergency notification.

EMMP is built on an open architecture framework and using a system of system approach, EMMP's flexible design supports rapid development and deployment of new software components whilst future proofing its core design.

EMMP is a suite of situational awareness software that provides access to and display of real time information, unified into a single, highly focused Common Operational Picture for:
fire detection
fire perimeter mapping and tracking
remotely activated structural suppression triggering
automatic vehicle location display
geographic information system map overlay display
pre-plan display
meteorological information display
emergency event notification and messaging
EMMP's supporting hardware components are comprised of:
the FireALERT MK II wildfire detection system and components
the ActALERT series of remotely triggered suppression activation systems
the HomeALERT series of FM broadcast emergency notification products
the SonicALERT series of siren control systems
Areas of Application – Our technology, products and services are suitable for private or commercial institutions (hotels, schools, hospitals, university campuses etc.) as well as for all markets associated with natural disasters.